

## **2015 UFI Sustainable Development Award**

### **Scope and Background**

**Identify the action objectives and briefly explain how this was implemented and how it fits in with overall sustainability goals.**

#### About Singapore International Water Week

The event, Singapore International Water Week (SIWW) is organised by Singapore International Water Week Pte Ltd, a company set up by Singapore's Ministry of Environment and Water Resources and PUB, Singapore's national water agency.

SIWW is an initiative carried out to position Singapore as a global hydrohub and to grow and profile the Singapore water industry. It acts as a platform to congregate the global water industry to discuss challenges and co-create innovative water solutions.

SIWW consists of key pillar events namely, Lee Kuan Yew Water Prize, Water Leaders Summit, Water Convention, Water Expo, Industrial Water Solutions Forum, Business Forums, TechXchange and Hydro-gen.

#### Objective

The objective of this is to assess and examine the implementation of sustainable efforts in relation to SIWW.

Sustainability is naturally the heart of an environmental event. With full consideration given to carbon footprint and water footprint issues, the organisers have made a concerted effort in ensuring sustainability is tightly integrated across SIWW, from the selection of venue provider to the delegate experience and marketing efforts. These long term investments reap many tangible and intangible returns.

SIWW's sustainable movement is also in sync with the sustainability guidelines from the Singapore's Ministry of the Environment and Water Resources (MEWR). Please refer to Annex A for MEWR's Sustainability Guidelines and MEWR's Environmentally-friendly Best Practices Checklist (SIWW).

The action objective of the show is for organisers to work with downstream partners such as venue, service providers and through our participants to ensure that the overall sustainable goal remained as top priority.

#### Detailed actions/solutions

**Describe the action or objectives applied. The description should include the type of stakeholders involved in the value chain of the exhibition industry, the innovative elements in organizational and/or technological terms, and the step taken to implementation.**

#### Organiser through downstream partners

In order to achieve the overall sustainability objectives, the organisers have conscientiously identified and worked with stakeholders that could help and complement the set objectives.

Among them includes the following:

##### 1. Event Venue

Marina Bay Sands Expo and Convention Center was specifically chosen as the venue for SIWW as it takes the ECO360° approach to global sustainability and has been certified "Green Mark Gold" and "EarthCheck Bronze Benchmarked". The ECO360° approach helps to reduce carbon footprint as well as water footprint during the event. Apart from this, Marina Bay Sands Expo and Convention Center has also earned itself the title of being the first venue in Southeast Asia to be certified with the ISO 20121 Sustainable Events Management System certification. Please refer to Annex B for Marina Bay Sands and Convention Center ECO360° Meeting Options Checklist.

Here are some illustrations of the ECO360° approach during SIWW.

- Recycling
  - Re-usable/biodegradable cups were used at the water stations instead of bottled water.
  - Sustainable food selections from the menu, food collection points
  - Food that was not consumed were donated to Food From The Heart, a non-profit organisation that distributes good and household items to over 120 welfare homes and 26 local schools
  - Rainwater is collected on the roof of the ArtScience Museum for use as flush water in the building
  - Aluminium, plastic, paper, cardboard and glass are also recycled each year
  - Lanyard disposal bins were also placed at strategic locations for delegates to drop off their badges for recycling purposes
  - Certain areas were allocated for dumping debris for recycling purposes
  
- Transportation
  - The Mass Rapid Transport (MRT) station located around MBS Sands and Expo Center allows delegates/visitors easy accessibility and most importantly, it reduces carbon footprint from vehicles if the delegates/visitors were to have individual transports.
  
- Others
  - Sustainable high-performance facilities
  - Lighting used in the MICE space uses the latest LED technology that consumes 25-30% less energy than conventional lighting
  - Water saved each year using low-flow sinks and dual-flush toilets across the property
  - Air-conditioning within the building kept between 24-25° to ensure energy efficiency and this also saves energy cost
  - Meeting rooms' lighting/equipment shut down overnight and an automatic "turn off" function via sensors when the space is unoccupied

Results/Outcomes:

The sustainability efforts listed above helped to achieve the following:

- 2,000 tonnes of aluminium, plastic, paper, cardboard and glass are recycled each year
- More than 50% of the lighting used in the MICE space uses the latest LED technology
- 348,000m<sup>3</sup> of water saved each year by using low-flow sinks and dual-flush toilets across the property

## 2. Event Set-up/Tear down

In the aspects of event set-up and tear down, we have worked with our service provider, PICO, who just like Marina Bay Sands Expo and Convention Center use LED lights for things like signage. PICO also works hand in hand with Marina Bay Sands Expo and Convention Center in collecting and gathering debris onsite to ensure that it is recycled.

Results/Outcome:

A partnership towards sustainability was achieved on a horizontal level in the value chain. Debris from the event was recycled and energy used was reduced.

## 3. Innovation in Technology

SIWW works with our IT service provider, GlobalSignin (GSI), to come up with creative and innovative ways for the event. The reliance on electronic devices reduced the need for printed event collaterals and paper wastage. Some samples of SIWW's electronic applications are:

- Virtual Water Expo



For SIWW 2014, the Virtual Water Expo (VWE), was created to allow our delegates and trade visitors a round-the-clock access of the expo even before it actually takes place. This also gives our exhibitors additional mileage and exposure. There was a reduction in print quantity of the Water Expo trade directory as we encourage the trade visitors to browse the list of exhibitors and exhibits via VWE, this resulted in cost savings as well.

- Mobile App



The increased use of digital media reduced the need for excessive print collaterals and paper wastage for example survey forms and programme booklets.

- Tablets



Tablets were distributed to delegates for use. As polls and surveys were conducted electronically, eradicating the need for printed materials and paper wastage for example, the conference directory and survey forms.

### **Organiser through delegate experience**

Sustainability efforts were also carried out through giving the delegates a better event experience for example, reducing travelling time by having other hotels located in within the proximity of the event venue and providing carpark valet services, buses for off-site events and a recyclable non-woven bag for conference delegates.

1. Hotels

Within the proximity of Marina Bay Sands Expo and Convention Center, there are many other supporting hotels such as Ritz Carlton, Swissotel Singapore and Marina Mandarin which delegates could choose to stay at. Delegates are able to reduce their travelling time and this reduces carbon emissions from transportation. MBS Expo and Convention Center is also within the vicinity of Marina Square Shopping Centre.

2. Transportation

Delegates were provided a limousine service to ferry them from the airport to the hotel. Cars hired were capped within a certain number to ensure that there was no excessive carbon emission from oversupply of limousine service cars.

The MRT station is also within close proximity, this allows the delegates and visitors to travel by public transport. A carpark valet service was also engaged to facilitate a pleasant drop-off experience and to reduce the inconvenience of delegates circling the carpark to find a parking lot, resulting in both time and fuel cost savings.

### 3. Off-site Events

For the site visit tours and the Lee Kuan Yew Banquet which were off-site, buses were catered to transport the delegates to the respective locations instead of them taking individual vehicles which will add to the amount of carbon emissions.

### 4. On-Site Material



Instead of giving out plastic or paper bags, SIWW produced recyclable non-woven bags for delegate use.

## **Marketing Efforts**

### 1. #SIWWPledge - A Social Media Campaign

**Objective:** #SIWWPledge is an initiative with both an environmental and social impact. It's objective is to spread awareness of the global water crisis to the general public and to encourage the public to take steps to conserve water in their day to day usage and support efforts to develop water solutions.

**Mechanics:** #SIWWPledge comprised a fun element for participants to submit a selfie or photograph and a pledge for the common water cause in the form of a typed message to the campaign's pledge website – [www.campaign.com/siwwpledge](http://www.campaign.com/siwwpledge) and share it over social media.

**Charity Element:** A charity element was incorporated in this campaign, Water.Org, an organisation dedicated to providing sustainable water solutions to needy communities, was chosen as the campaign's beneficiary. Sponsors contributed S\$5000 to #SIWWPledge and for every pledge made, several SIWW founding sponsors donated S\$1 to the water solutions agency, Water. Org.

#### Results/Outcomes:

- 89,047 pledges were garnered
- Host Site was shared 2,144 times through social media
- Sponsor companies like Black and Veatch, CDM Smith, Keppel Group, PWN Technologies, sembcorp, Singapore International Water Week, Suez Environment and Veolia contributed S\$5000 each to #SIWWPledge

### 2. Tablet

Conference proceedings were put online and delegates could access it via their tablets.

### 3. Mobile App

Exhibition and conference content was put on the mobile app so that delegates can access programme and speaker details, and exhibition booth locations on the go.

#### Results/Outcomes:

This reduced the number of printed collaterals needed for the conference proceedings and exhibition/conference content.

## Value creation - Innovative and creative ways towards sustainability

Some creative and fun innovations were created with the overall sustainability goal in mind. Recycling and upcycling were two themes observed throughout SIWW, for example the mobile charging station units and the benches for discussions.

### 1. Sustainable Tumbler



No bottled water was provided and delegates were given sustainable tumblers as their water companion throughout the event. This reduced the need for multiple disposable cups and decreased the overall disposable waste factor. There was a partnership between the organiser and the event venue to offer discounts to delegates who used their tumblers when purchasing beverages. This encourages them to use their tumblers as well as serves as a take-away from the event.

### 2. Mobile Charging Stations



Mobile charging stations were made from recycled materials and were placed in allocated areas. Delegates could plug in and charge their mobile phones during the event.

### 3. Benches at discussion areas



Delegates could have discussions at certain allocated areas where benches were made from recycled materials.

### 4. Hotel Keycards



Customised hotel keycards made from biodegradable material were given to the delegates.

## Conclusion

Efforts were made from the planning stage to onsite and post event to ensure that the implementations of the sustainable initiatives were carried out and that the overall sustainability goal was achieved. Through the implementation of the various sustainable initiatives, SIWW has also earned the Platinum Standard for the Ministry of the Environment and Water Resources (MEWR) Family Environmentally-Friendly Best Practices for all Events.

# Annex A

## Ministry of the Environment and Water Resources (MEWR) Sustainability Guidelines

Guide to implementing environmentally-friendly best practices to events

# GUIDE TO IMPLEMENTING ENVIRONMENTALLY-FRIENDLY BEST PRACTICES FOR EVENTS

The guide is developed by the Ministry of the Environment and Water Resources (MEWR) and her two statutory boards, the National Environment Agency (NEA) and PUB, the national water agency. It provides a list of environmentally-friendly best practices that the MEWR Family and other public agencies can adopt for their events, be it internal or external. The best practices are grouped in three tiers, namely *Compulsory*, *Strongly Encouraged* and *Good To Have*.

<b>COMPULSORY TIER</b> High visibility, high impact practices	<b>STRONGLY ENCOURAGED TIER</b> Should be implemented for events whenever applicable	<b>GOOD TO HAVE TIER</b> Good to have at events; should implement whenever resources/situation permits
<ol style="list-style-type: none"><li><b>1. Reuse equipment from event to event</b> Collect lanyards and ID cases for re-use.</li><li><b>2. Minimise hardcopies</b> Use thumbdrives, CDs, iPads or free online tools to share documents and conduct surveys. If printing, use both sides and print on recycled or sustainable source paper.</li><li><b>3. Minimise giving out plastic bags</b> This is exempted in situations where not doing so will compromise hygiene and safety, such as plastic trash bags for litter-picking activities.</li><li><b>4. Provide recycling and waste bins</b> Mark the bins clearly, and deploy them prominently in convenient areas for use at event.</li><li><b>5. Use energy efficient lights in exhibits or displays</b> Avoid energy intensive lighting such as halogen lights.</li><li><b>6. Keep venue clean at all times</b> Deploy cleaners as necessary.</li><li><b>7. Avoid controversial dishes featuring endangered animals</b></li><li><b>8. Avoid plastic utensils and styrofoam plates, cups and bowls</b> Consider using reusable crockery such as melamine ware. Organisers should encourage participants to clear their own crockery at designated Crockery Return Points or bins provided.</li><li><b>9. Avoid ordering excess food</b></li><li><b>10. Set air-conditioners at 24°C, where feasible</b> Alternatively, work with venue owners to encourage them to do so.</li><li><b>11. Avoid generating plastic bottle waste</b> Do not distribute bottled water. Deploy water dispensers paired with recycling bins for the cups. Use pitchers and glasses when serving water to VIPs at events such as conferences. If bottled water need to be distributed at the events such as Family Day and Marathon, organiser should recycle the plastic bottles collected after the event.</li><li><b>12. Environmental announcements to be made by Emcees</b></li><li><b>13. Pick green venues such as hotels which are BCA Green Mark certified</b></li></ol>	<ol style="list-style-type: none"><li><b>1. Avoid giving out goodie bags when not necessary</b> If goodie bags are assessed to be an important factor in drawing crowds to increase outreach coverage, use items with practical use – eg. angpow paper, towel, thumbdrive.</li><li><b>2. Avoid excessive packaging for collaterals</b></li><li><b>3. Have practical tokens of appreciation</b> An example is commemorative book. Avoid items like acrylic plaques and encourage external partners to do so too. Advise external partners that it is not necessary to give tokens of appreciation to public agencies' officers, including political office holders, who are gracing events as Guests-of-Honour.</li><li><b>4. Plan event to reduce electricity use, where feasible</b> Avoid non-vital items such as decorative displays that need electricity to run.</li><li><b>5. Check water fittings at the venue are in good working condition</b> Notify the venue owner for prompt rectification.</li><li><b>6. Pick venues with adequate toilet facilities</b> When using portable toilets, ensure sufficient cubicles are provided for the event.</li><li><b>7. Display contacts for the public to report problems with water leakage or faulty water fittings, as well as general cleanliness/hygiene</b> Alternatively, get the venue management to ensure that care is taken to prevent water leakage and ensure general cleanliness / hygiene.</li><li><b>8. Display anti-littering, water conservation and other relevant environmental messages / posters at strategic positions</b></li><li><b>9. Include environmental messages in event communication and marketing, where appropriate</b></li><li><b>10. Apply vector control measures at venues where vectors such as mosquitoes and rats are likely to be present</b></li><li><b>11. Provide participants with information and maps on public transportation</b> Encourage them to take public transport or carpool in the invites.</li><li><b>12. Adopt paperless registration, communication and marketing methods</b> Some examples are social media, e-registration, e-invite and e-posters.</li></ol>	<ol style="list-style-type: none"><li><b>1. Use reusable stage backdrop, launch mechanism, exhibition booths and panels</b> Some examples are e-backdrop, multimedia video for the opening ceremony, booths &amp; panels in modular and versatile systems &amp; structures. Materials that cannot be reused should be recycled.</li><li><b>2. Give preference to stage/exhibition designs that incorporate reused or sustainable products</b> An example is to minimise the use of aisle carpets in the exhibition area as they are synthetic and not reusable.</li><li><b>3. Use natural lighting or ventilation wherever possible</b></li><li><b>4. Use signage and banners produced with environmentally-friendly materials (instead of standard PVC) where possible</b> If not, arrangements should be made for them to be donated, recycled or reused after the event – eg. old banners could be made into bags by WeWork (Singapore).</li><li><b>5. Select venues situated near public transportation services as much as possible</b></li><li><b>6. Consider providing shuttle services to the nearest public transport hub, if venue is inaccessible to public transport</b></li><li><b>7. Encourage participants to bring their own bottles</b></li></ol>

**Ministry of the Environment and Water Resources**  
**PUB** National Environment Agency  
Water for All: Conserve, Value, Enjoy

## MEWR's environmentally-friendly best practices checklist (SIWW)

		Was the best practice applicable to the event?	
	Best Practice	If applicable, how was the best practice implemented?	If not applicable, why was the best practice not applicable to the event?
1.	<b>Reuse equipment</b> from event to event – eg. collect lanyards and ID cases for re-use	Collection bins were placed outside expo halls to recycle lanyards & ID cases.  Machines for registration were reused after event	
2.	<b>Minimise hardcopies.</b> Use thumbdrives or CDs. If printing, use both sides and print on recycled or sustainable source paper	Conference proceedings will be published online and also stored on a tablet that is given to the delegates.  Survey forms will be done electronically.	
3.	<b>Minimise giving out plastic bags,</b> except where not doing so will compromise hygiene and safety, such as plastic trash bags for litter-picking activities	Giving out show carrier bag only (recyclable and made of non-woven material)	
4.	<b>Provide recycling and waste bins</b> - to be clearly marked, deployed prominently and in convenient areas for use at event	Recycling and waste bins were provided by MBS at every floor to promote environmentally friendly practices.	
5.	<b>Use energy efficient lights in exhibits or displays.</b> Avoid energy intensive lighting such as halogen lights	MBS practices equipment and lighting shutdown in unoccupied spaces, elevators are fitted with regenerative drives to convert excess heat to electricity. MBS' Intelligent Building Management System has over 60,000 control points to allow automated controls over lighting, heating and water supplies. For instance the building is able to dim or brighten lights in the public areas depending on the time of the day and weather conditions.  Any lighting used by PICO was energy efficient.	

6.	<b>Keep venue clean</b> at all times, deploy cleaners as necessary	Cleaning is undertaken by MBS's appointed vendor.	
7.	<b>Avoid controversial dishes</b> featuring endangered animals, eg. sharksfin soup	Already in place – MBS's Zero Shark's Fin policy.	
8.	<b>Avoid plastic utensils and styrofoam plates, cups and bowls.</b> Consider using reusable crockery such as melamine ware or those made of "2 <sup>nd</sup> use" materials eg recycled paper plates. (Do not use biodegradable or corn ware, as all waste in Singapore is incinerated)	Porcelain wares were used for all delegates lunches and networking events (Opening Ceremony & Welcome Reception, Closing Dinner, Lee Kuan Yew Prize Award Ceremony & Banquet)	
9.	<b>Avoid generating plastic bottle waste</b> – do not distribute bottled water. Deploy water dispensers paired with recycling bins for the cups. Use pitchers and glasses when serving water to VIPs	Water in conference rooms are served in pitchers and glassware.  Water dispensers paired with mugs/ glasses  Sustainable tumblers given to all delegates.	
10.	<b>Environmental announcements</b> to be made by Emcees	Included in emcee scripts of the conference programmes, to remind them to use their tumblers, participate in surveys via the tablet etc	
<b><u>Strongly Encouraged Tier</u></b>			
		<b>Was the best practice applicable to the event?</b>	
	<b>Best Practice</b>	<b>If applicable, how was the best practice implemented?</b>	<b>If not applicable, why was the best practice not applicable to the event?</b>
1.	<b>Avoid giving out goodie bags</b> when not necessary. If goodie bags are assessed to be an important factor in drawing crowds to increase outreach coverage, use items with practical use – eg. angpow paper, towel, thumbdrive	The only bag that is given to delegates are the non woven bags which contain the tablet (with conference proceedings) and sustainable tumblers (encourages delegates to bring the tumblers to cafes in MBS and cut down on need for disposable cups).	

2.	<b>Excessive packaging for collaterals</b> to be avoided	No excessive packing.	
3.	<b>Practical tokens of appreciation</b> – eg. commemorative books. Avoid items like acrylic plaques and encourage external partners to do so too. Advise external partners that it is not necessary to give tokens of appreciation to MEWR officers, including political office holders, who are gracing events as Guests-of-Honour.	- Did not produce any plaques for this event.	
4.	<b>Plan event to reduce electricity use</b> , where feasible – eg. avoid non-vital items such as decorative displays that need electricity to run	Reduction of the use of light boxes for directional signage etc.	
5.	<b>Set air-conditioners at around 25°C</b> (when within organiser's control) or work with venue owners to encourage them to do so	Communicated to MBS and they helped to administer this.	
6.	<b>Check water fittings</b> at the venue are in good working condition - notify the venue owner for prompt rectification	Communicated to MBS and they helped to administer this.	
7.	<b>Pick venues with adequate toilet facilities</b> - for portable toilets, ensure sufficient are provided for the event	Achieved by locating at MBS	
8.	<b>Display contacts for the public to report problems</b> with water leakage or faulty water fittings, as well as general cleanliness/hygiene	Already in place	
9.	<b>Display anti-littering, water conservation and other relevant environmental messages/posters</b> at strategic positions - eg. please bin litter, turn the tap off when soaping your hands	Already in place	
10.	<b>Include environmental messages in event</b>	Informed exhibitors to reduce distribution of	

	<b>communication and marketing</b> , where appropriate	collaterals, to email soft copy instead.	
11.	<b>Vector control measures</b> to be applied at venues where vectors such as mosquitoes and rats are likely to be present	MBS is covered with their supplier	
12.	<b>Provide participants with information and maps on public transportation</b> - encourage them to take public transport or carpool in the invites	On event website and event app.	
13.	<b>Paperless registration, communication and marketing methods</b> – eg. social media, e-registration, e-invite and e-posters	Used e-registration and e-invite for advance registration.	
<b><u>Good to Have Tier</u></b>			
		<b>Was the best practice applicable to the event?</b>	
	<b>Best Practice</b>	<b>If applicable, how was the best practice implemented?</b>	<b>If not applicable, why was the best practice not applicable to the event?</b>
1.	<b>Use reusable exhibition booths and panels.</b> Materials that cannot be reused should be recyclable	Panels for the exhibition booths are reusable.	
2.	<b>Give preference to stage/exhibition designs that incorporate reused or sustainable products</b>	In place. For instance, the chairs at the discussion areas are made using recycled carpet rolls	
3.	<b>Use natural lighting or ventilation</b> wherever possible	MBS uses extensive sun shadings across its glass façade and roofs. The natural daylight that passes through the glass illuminates indoor areas, displacing the need for energy-intensive lights.	
4.	<b>Use signage and banners produced with environmentally-friendly materials</b> (instead of standard PVC) where possible. If not, arrangements should be made for them to be donated, recycled or reused after the event – eg. arrange for old banners	Street banners were donated to People’s Association for re-use purposes.	

	made into bags		
5.	<b>Select venues situated near public transportation services</b> as much as possible	MBS is accessible and well connected by MRT and buses.	
6.	<b>Consider providing shuttle services to the nearest public transport hub</b> , if venue is inaccessible to public transport		
7.	Encourage participants to <b>bring their own bottles</b>	Sustainable tumblers were given to the delegates.	

**MEWR Family Environmentally-Friendly Event Standards**

Standard		Tiers of Best Practices Implemented
Platinum		Compulsory + Strongly Encouraged + Good-to-have
Gold		Compulsory + Strongly Encouraged
Silver		Compulsory only

SIWW has attained the **Platinum Standard** (the highest standards) for following the MEWR's guidelines tiers "compulsory", "strongly encouraged" and "good-to-have".

## Annex B

### Marina Bay Sands Expo and Convention Center ECO360° Meeting Options Checklist

<b>SANDS ECO360° Meetings: High-Performance Facilities</b>		
<b>Standards</b>	<b>Checklist</b>	<b>Description</b>
<b>GREEN CERTIFICATIONS</b>		
APEX/ASTM Environmentally Sustainable Events	√	Level 1 Venue Certified
Green Mark for New Construction (Singapore)	√	Green Mark Gold Certified
EarthCheck (Australia)	√	EarthCheck Bronze Benchmarked
<b>ENERGY CONSERVATION (MEASURES)</b>		
<i>Energy Reduction Management</i>		
Meter energy consumption and establish 12-month energy performance baseline	√	Energy performance has been tracked since 2010. The current energy performance baseline is the first full year of operations: 2012. Target: 3% reduction by 2015.
Conduct energy audits	√	An energy audit is conducted every year to evaluate energy performance.
Implement a commissioning programme	√	Commissioning is conducted every other year to optimize system performance.
Electricity and chilled water sub-meters to monitor sub-divided areas of the property	√	Sub-metered areas include retail common areas and MICE floors.
A written energy reduction plan with specific goals	√	
<b><i>Energy-Efficient Lighting (LED, CFL, CCFL, and T-8 Fluorescent etc.) checked off if more than 50%</i></b>		
Exhibition Halls	√	
Guest rooms and corridors	√	
Parking and Loading Docks	√	
Heart of House (HOH)	√	
<b><i>Occupancy and Daylight Sensors</i></b>		
Hotel and retail public areas	√	Daylight sensors are installed in public areas to control lighting in the hotel lobby and retail common areas based on the amount of natural light available.
Heart of House (HOH)	√	In the service areas of the building, occupancy sensors automatically turn off the lights when Team Members are not present.
<b><i>Other Energy Efficiency Measures</i></b>		

Programmable Building Management System (BMS) for meeting rooms, exhibition halls, and public areas.	√	The BMS system controls the temperature of the meeting rooms.
Green roof	√	250 trees are planted on Marina Bay Sands' green roof at Sands SkyPark.
Low e-glass	√	
Variable passenger flow escalators	√	Escalators are programmed to switch from "full running" mode to "slowdown" mode after 3 minutes when nobody is using them, which is 10% of the normal speed. After 6 minutes, if they continue to remain unused, they go from "slowdown" mode to "stationary" mode, which is not moving.
Insulated water pipes and heaters	√	
<b>WATER CONSERVATION (MEASURES)</b>		
<b><i>Water-Reduction Management</i></b>		
Meter water consumption and establish 12-month water performance baseline	√	Water performance has been tracked since 2010. The current water performance baseline is the first full year of operations: 2012. Target: 2% reduction by 2015.
Use of reclaimed water for flushwater	√	A rainwater harvesting system reclaims water for use as flush water in the ArtScience Museum.
A written water-reduction plan with specific goals	√	
<b><i>Water-Efficient Landscaping</i></b>		
Drip irrigation systems	√	The entire property uses a drip irrigation system.
<b><i>Water-Efficient Plumbing Fixtures</i></b>		
Faucets (aerators ≤6 litres per minute)	√	
Toilets (≤4.5 litres per flush)	√	
Urinals (≤1.5 litres per flush)	√	
Showerheads (≤8 litres per minute)	√	Local code baseline is 9 litres per minute for a water efficient fixture

<b>SANDS ECO 360° Meetings: Standard Sustainable Practices</b>		
<b>Standards</b>	<b>Checklist</b>	<b>Description</b>
<b>ENERGY CONSERVATION (PRACTICES)</b>		
<b><i>General</i></b>		
Reduced lighting levels in corridors	√	

overnight		
Meeting room lighting/equipment shut down and meeting room door shut overnight or when unoccupied	√	
Reduced Air-Conditioning levels in meeting rooms overnight or when unoccupied	√	
50% lighting levels in exhibit halls during move in/move out	√	
Exhibit halls lighting shut down overnight or when unoccupied	√	
Exhibit halls have reduced Air-Conditioning during move in/move out, overnight or when unoccupied	√	
During event, Air-Conditioning is set at a comfortable level without excessive energy use	√	
Escalators shut down overnight or when unused; limited operation during move in/move out	√	
<b>WATER CONSERVATION (PRACTICES)</b>		
Eco Linen Programme	√	We change linens and towels on the third day of a guest's stay or at their departure, unless requested otherwise.
<b>MATERIAL CONSERVATION (PRACTICES)</b>		
<b><i>Paper Reduction/Conservation Programme</i></b>		
Sales, Group Sales and Catering & Conference Managers use iPads for client meetings to reduce paper consumption	√	
Notepads, flipcharts, coasters and plastic bags: use FCS (Forest Stewardship Council ) certified paper or >50% recycled paper/plastic; printed with soy-based ink	√	
Paperless e-routing for sales contract and electronic contract to client	√	Hard copies are only delivered to the client upon request.
Electronic sales kits	√	
Electronic menu	√	
Electronic BEO	√	
Double-sided printing available at the business centre	√	
Electronic signage in the MICE space	√	
No newspaper delivery to standard guest suites unless requested	√	

<b>WASTE MANAGEMENT</b>		
<b><i>Policy</i></b>		
Waste management policy in place with recycling procedures, waste reduction plan, and follow-up inspections	√	
<b><i>Property Average Recycling Rate</i></b>		
Marina Bay Sands	20%	
Meeting, Incentives, Conventions, Exhibitions (MICE) Space	20%	
<b><i>Recycling Programme Sorting Location</i></b>		
On-site	√	Waste at Marina Bay Sands is pre-sorted by Team Members with recycling bins around property.
Off-site	√	Recyclables generated at Marina Bay Sands are sent to an off-site facility for further separation.
<b><i>Recycled Items</i></b>		
Cardboard	√	
Paper	√	
Aluminium	√	
Plastic	√	
Metal	√	
Cooking oil	√	Converted to fuel, compost and water
Food waste	√	Converted to clear water and compost through an in-house micro bacterial machine
Glass	√	
Batteries and Light bulbs	√	Disposed of properly following local government regulations.
Used soap and shampoo products	√	Given to local charity groups
Toner cartridges	√	Through Fuji-Xerox
Horticulture waste	√	Live plants, floral centerpieces and decorations are reused by Team Members when possible.
<b><i>Food Waste Recycling</i></b>		
Food waste composting/digesting	√	Nearly 2 tonnes of food waste per day is digested into water and compost.

Transfer to Team Member dining	√	A portion of unused leftover food is transferred to the Team Member dining room.
<b>Upstream Recycling Programme</b>		
Housekeeping	√	Cardboard, newspaper, magazines, bottles and used soap and shampoo products are pre-sorted at housekeeping stations for recycling.
Meetings, Incentives, Conventions and Exhibitions	√	Public recycling bins are placed in public spaces in MICE spaces.
Heart of House (HOH)	√	An upstream recycling programme has been implemented in offices, the beverage department, kitchens, the Team Member dining room, and all back-of-house corridors.
<b>Waste Audit</b>		
Conduct waste audit at least twice a year	√	
<b>AIR QUALITY CONTROL</b>		
<b>Guest Transportation</b>		
Mass Rail Transit (MRT) / Subway	√	Singapore's MRT has a stop at Marina Bay Sands.
Access to public transportation	√	There are four bus stops within 20 metres from the property.
<b>Smoking</b>		
% of smoke-free space	95%	The entire property is smoke free (including MICE space), except for selected parts of the Casino area and 6% of guest rooms (designated smoking rooms).
% of non-smoking guest rooms	94%	
Set up designated smoking areas away from doors, operable windows, and open air intakes.	√	Distance of 6 metres from doors, operable windows and open air intakes
<b>General</b>		
Regular air-filter cleaning	√	
No idling policy & signage (less than 15 min)	√	
No idling policy staff training once a year	√	
Integrated pest-management programme	√	
CO2 monitoring in the meeting rooms	√	CO2 demand ventilation in the meeting rooms keeps a balance between air quality and energy efficiency.

CO monitoring in parking garage	√	CO level is monitored in the Marina Bay Sands underground parking garage.
No use of motorized equipment and vehicles powered by internal combustion anywhere inside the facilities except in garages, in front of loading docks, or in case of emergencies.	√	
<b>SUSTAINABLE PROCUREMENT (STANDARDS)</b>		
<b><i>Policy</i></b>		
Sustainable procurement policy	√	
<b><i>Packaging Material</i></b>		
Bulk purchasing	√	
<b><i>Office Supplies</i></b>		
Compliant % in dollar amount	41%	41% of office supplies purchased for Sands Expo and Convention Center
At least 10% post-consumer and/or 20% post-industrial materia	√	
Toner cartridges are remanufactured	√	
<b><i>Paints, Coatings, Adhesives, Sealants &amp; Carpets</i></b>		
Compliant % in dollar amount	48%	
Low VOC paints and coatings (SGLS)	√	Adheres to the Singapore Green Labeling Scheme
Low VOC adhesives and sealants (SGLS)	√	Adheres to the Singapore Green Labeling Scheme
Low VOC carpet (SGLS)	√	Adheres to the Singapore Green Labeling Scheme
Low VOC carpet cushion (SGLS)	√	Adheres to the Singapore Green Labeling Scheme
<b><i>Cleaning Products, Janitorial Paper Products and Trash Bags</i></b>		
Compliant % in dollar amount	40%	
Singapore Green Labeling Scheme	√	Administered by the Singapore Environment Council
<b>SUSTAINABLE FOOD AND BEVERAGE (STANDARD PRACTICES)</b>		
<b><i>Sustainable Food – Property General Practices</i></b>		
Fair Trade, or organic tea	√	Bagged tea is organic and Fair Trade certified.
<b>SANDS ECO360 SETTINGS</b>		

<b><i>Seated Meal Functions</i></b>		
Reusable service ware (china, glass, silverware and napkins)	√	
Table cloths	√	
Serve in bulk: milk, salt & pepper, coffee, tea	√	
Water or ice tea is preset in pitchers with empty glasses at every place setting	√	
<b><i>Carry-out and Concession</i></b>		
Wooden coffee sticks	√	
Use plastic bags made from at least 50% recycled plastic	√	
Serve in bulk: salt & pepper, condiments, coffee and tea	√	
<b>COMMUNITY ENGAGEMENT</b>		
Donate leftover breads and pastries from events to the local community on a daily basis	√	
Donate leftover materials from events and general surplus materials from daily operations to the local community	√	
Allocate time and resource to local environmental events and encourage staff to participate in green community projects	√	